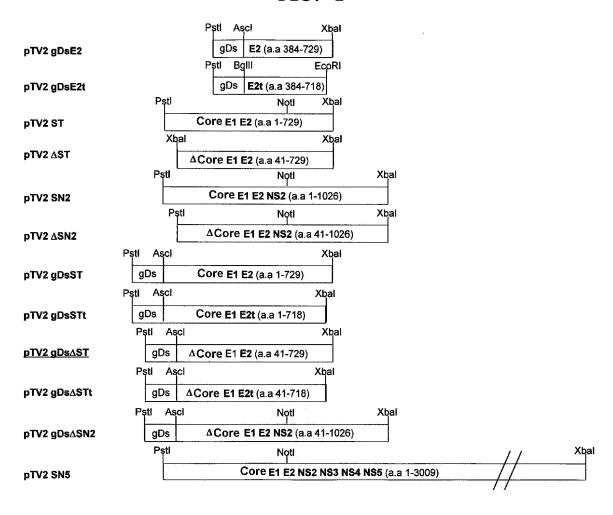
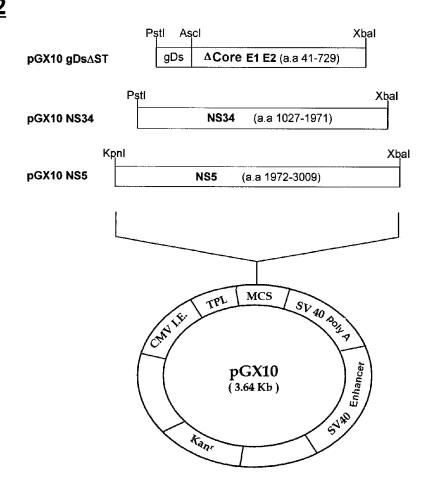
1/21 FIGURES

FIG. 1



2/21 FIG. 2

HC102



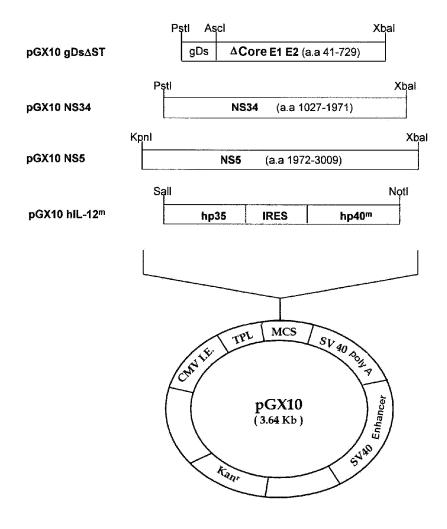
Application No. 10/528,644

Docket No: 428.1049

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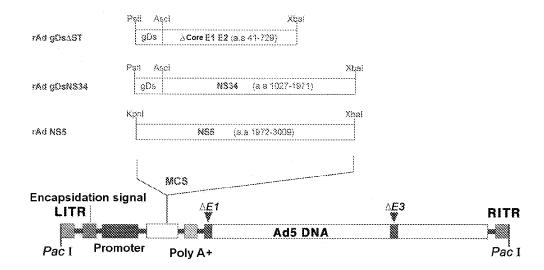
FIG. 3

HC103



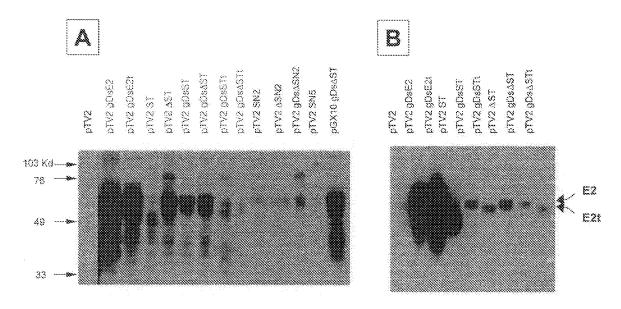
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FIG. 4



rAd HC102

FIG. 5



5/21 FIG. 6

<u>COS-7</u>

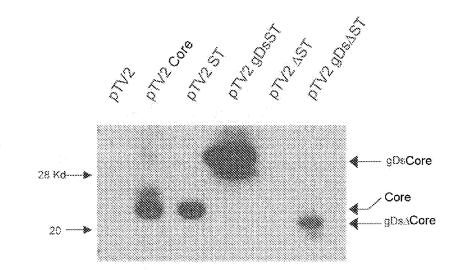
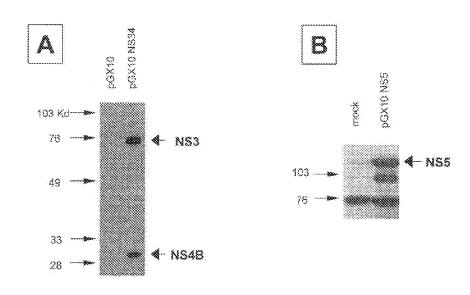


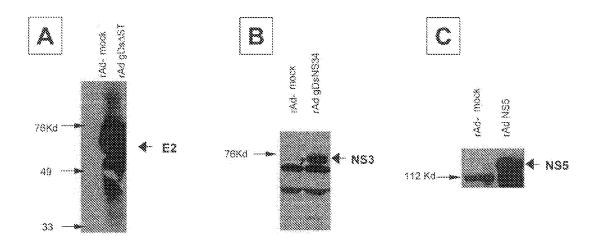
FIG. 7

COS-7



6/21 FIG. 8

<u>293A</u>



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Optimization of insert size

(5 weeks after immunization)

E2 specific IFN-r ELISPOT & CTL response target cell: 2x104 CT26-hghE2t/well

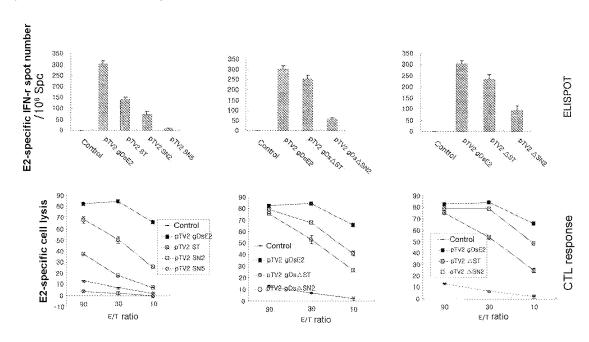
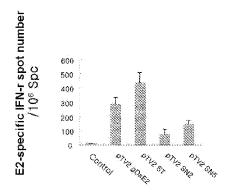


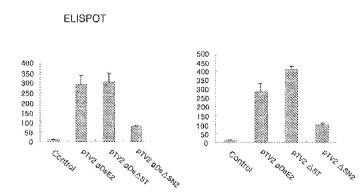
FIG. 10

Optimization of insert size

(3, 4 weeks after boosting)

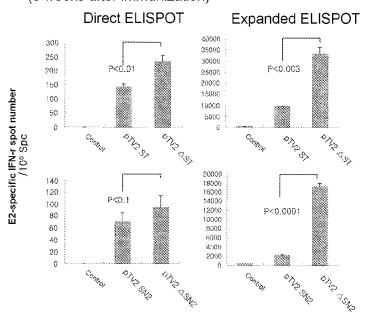


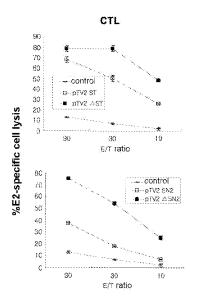
E2 specific IFN-r ELISPOT & CTL response target cell: 2x10⁴ CT26-hghE2t/well



8/21 FIG. 11

Truncation of core N-terminus (5 weeks after immunization)





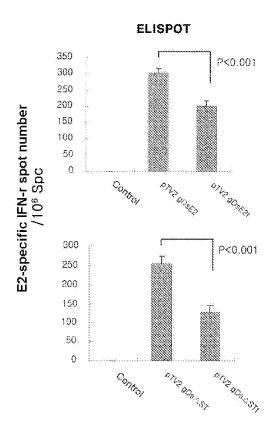
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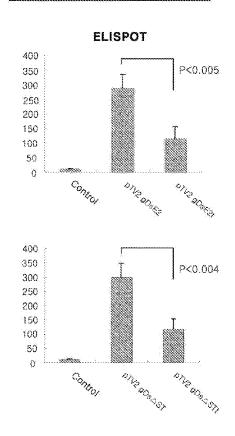
FIG. 12

Truncation of E2 TM domain

5 weeks after immunization

3.4 weeks after boosting

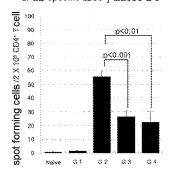




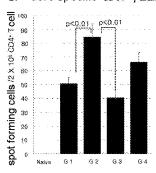
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FIG. 13

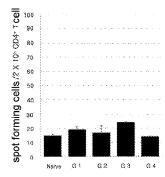
a, E2 specific IFN-y ELISPOT



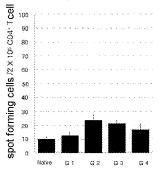
core specific IFN-yELISPOT b.



c. E2specificIL-4 ELISPOT



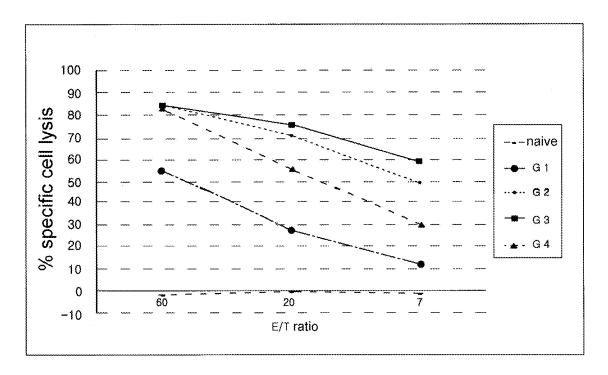
core specific IL-4 ELISPOT



naive saline injected control

- G 1: pGX10 gDsAST + pGX10 m/L-12mutant injection -> pGX10 gDsAST + pGX10 mit-12mutant injection
- G 2: pGX10 gDsAST + pGX10 mIL-12mutant injection -> rAd gDsAST injection
 G 3: rAd gDsAST injection ->
- rAd gDsaST injection
 G 4: rAd gDsaST injection ->
 pGX10 gDsaST + pGX10 mlL-12mutant injection

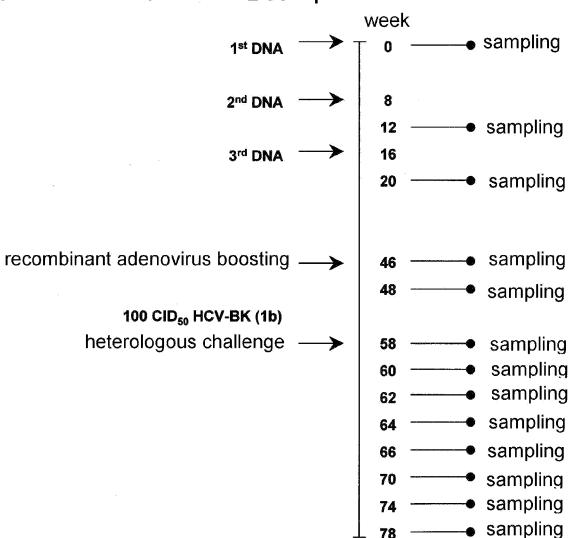
11/21 FIG. 14



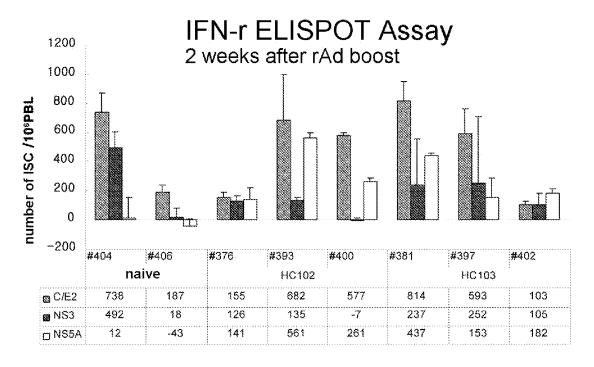
12/21 FIG. 15

(schedule)

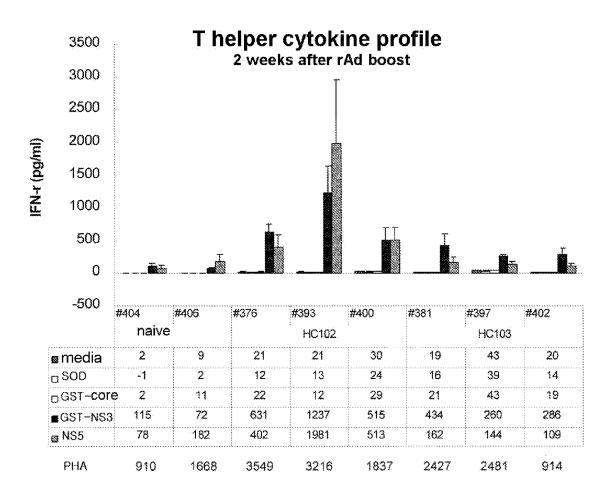
DNA prime/ rAd boost



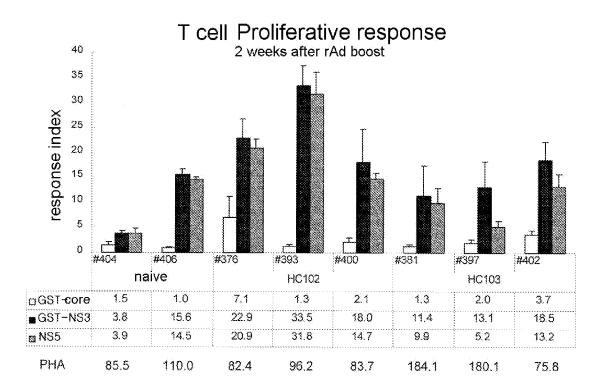
13/21 FIG. 16



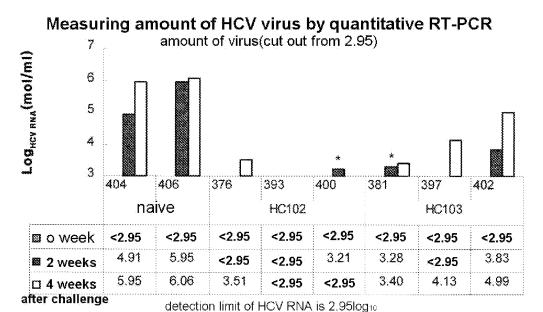
14/21 FIG. 17



15/21 FIG. 18



16/21 FIG. 19



^{*} mean amount of HCV RNA with triplicate measurement, one of which was below the detection limit.

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FIG. 20a

Amino acid sequence of core peptide pool

	∆core (43-191)						
No	Name	Sequence	SEQ ID NO				
#1	HCV43-52	RLGVRATRKT SERSQPRGRR	55				
#2	HCV53-72	SERSQPRGRR QPIPKARQPE	56				
#3	HCV63-82	QPIPKARQPE GRTWAQPGYP	57				
#4	HCV73-92	GRTWAQPGYP WPLYGNEGLG	58				
#5	HCV83-102	WPLYGNEGLG WAGWLLSPRG	59				
#6	HCV93-112	WAGWLLSPRG SRPSWGPTDP	60				
#7	HCV103-122	SRPSWGPTDP RRRSRNLGKV	61				
#8	HCV113-132	RRRSRNLGKV IDTLTCGFAD	62				
#9	HCV123-142	IDTLTCGFAD LMGYIPLVGA	63				
#10	HCV133-152	LMGYIPLVGA PLGGVARALA	64				
#11	HCV143-162	PLGGVARALA HGVRLLEDGV	65				
#12	HCV153-172	HGVRLLEDGV NYATGNLPGC	66				

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FIG. 20b

Amino acid sequence of E2t peptide pool

	E2t (284-713)							
No	Name	Sequence	SEQ ID NO	No	Name	Sequence	SEQ ID NO	
#13	HCV384-403	STRVTGGTEG RTTNRFVSIF	67	#29	HCV554-573	WMNSTGFTKT CGGPPCDIGG	83	
#14	HCV404-423	ASGPSQKIQL VNNNGSWHIN	68	#30	HCV564-583	CGGPPCDIGG VGNNTLTCPT	84	
# 1 5	HCV414-433	VNNNGSWHIN RTALNCNDSL	69	#31	HCV574-593	VGNNTLTCPT DCFRKHPEAT	85	
#16	HCV424-443	RTALNCNDSL SSGFIAALFY	70	#32	HCV584-603	DCFRKHPEAT YTKCGSGPWL	86	
#17	HCV434-453	SSGFIAALFY THKFDSSGCP	71	#33	HCV594-613	YTKCGSGPWL TPRCMVDYPY	87	
#18	HCV444-463	THKFDSSGCP ERMASCRPID	72	#34	HCV604-623	TPRCMVDYPY RLWHYPCTIN	88	
#19	HCV454-473	ERMASCRPID KFAQGWGSIT	73	#35	HCV614-633	RLWHYPCTIN FTIFKVRMYV	89	
#20	HCV464-483	KFAQGWGSIT YAESGGSDQR	74	#36	HCV624-643	FTIFKVRMYV GGVEHRLDAA	90	
#21	HCV474-493	YAESGGSDQR PYCWHYAPRQ	75	#37	HCV634-653	GGVEHRLDAA CNWTRGERCD	91	
#22	HCV484-503	PYCWHYAPRQ CGIVPASQVC	76	#38	HCV644-663	CNWTRGERCD LEDRDRSELS	92	
#23	HCV494-513	CGIVPASQVC GPVYCFTPSP	77	#39	HCV654-673	LEDRORSELS PLLLSTTEWQ	93	
#24	HCV504-523	GPVYCFTPSP VVVGTTDRSG	78	#40	HCV664-683	PLLLSTTEWQ VLPCSFTTLP	94	
#25	HCV514-533	VVVGTTDRSG APTYTWGENE	79	#41	HCV674-693	VLPCSFTTLP ALSTGLIHLH	95	
#26	HCV524-543	APTYTWGENE TOVLLLINNTR	80	#42	HCV684-703	ALSTGLIHLH QNIVHAQHLH	96	
#27	HCV534-553	TDVLLLNNTR PPQANWFGCT	81	#43	HCV694-713	QNIVHAQHLH GVGSAVVSIV	97	
#28	HCV544-563	PPQANWFGCT WMNSTGFTKT	82					

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Amino acid sequence of NS3 protease peptide pool

NS3 protease (1029-1217)						
No	Name	Sequence	SEQ			
			ID NO			
#44	gHCV-1029	ITAYSQQTRGLLGCIITSLT	98			
#45	gHCV-1039	LLGCIITSLTGRDKNQVEGE	99			
#46	gHCV-1069	FLATCVNGAWTVFHGAGSK	100			
#47	gHCV-1078	WTVFHGAGSKTLAGPKGPIT	101			
#48	gHCV-1088	TLAGPKGPITQMYTNVDLDL	102			
#49	gHCV-1098	QMYTNVDLDLVGWQAPPGSR	103			
#50	gHCV-1108	VGWQAPPGSRPLTPCTCGSS	104			
#51	gHCV-1118	PLTPCTCGSSDLYLVTRHAD	105			
#52	gHCV-1128	DLYLVTRHADVIPVRRRGDS	106			
#53	gHCV-1138	VIPVRRRGDSRGSLPCPRPV	107			
#54	gHCV-1148	RGSLPCPRPVSYLKGSSGGP	108			
#55	gHCV-1158	SYLKGSSGGPLLCPSGHAVG	109			
#56	gHCV-1168	LLCPSGHAVGIFRAAVCTRG	110			
#57	gHCV-1178	IFRAAVCTRGVAKAVDFIPV	111			
#58	gHCV-1188	VAKAVDFIPVESMETTMRSP	112			
#59	gHCV-1198	ESMETTMRSPVFTDNSTPPA	113			

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FIG. 20d

Amino acid sequence of Helicase peptide pool

	4000 1050							
	NS3 helicase (1208-1656)							
No	Name	Sequence	SEQ ID NO	No	Name	Sequence	SEQ ID NO	
#60	HCV1208-1227	VFTDNSTPPA VPQTFQVAHL	114	#77	HCV1458-1477	TQTVDFSLDP TFTIDTTTVP	131	
#61	HCV1218-1237	VPQTFQVAHL HAPTGSGKST	115	#78	HCV1468-1487	TFTIDTTTVP QDAVSRSQRR	132	
#62	HCV1228-1247	HAPTGSGKST KVPAAYAAQG	116	#79	HCV1478-1497	QDAVSRSQRR GRTGRGRRGI	133	
#63	HCV1238-1257	KVPAAYAAQG YKVLVLNPSV	117	#80	HCV1488-1507	GRTGRGRRGI YRFVTPGERP	134	
#64	HCV1248-1267	YKVLVLNPSV AATLGFGVYM	118	#81	HCV1498-1517	YRFVTPGERP SGMFDSSVLC	135	
#65	HCV1258-1277	AATLGFGVYM SKAHGIDPNI	119	#82	HCV1518-1537	ECYDAGCAWY ELTPAETSVR	136	
#66	HCV1268-1287	SKAHGIDPNI RTGVRAITTG	120	#83	HCV1528-1547	ELTPAETSVR LRAYLNTPGL	137	
#67	HCV1278-1297	RTGVRAITTG APITYSTYGK	121	#84	HCV1538-1557	LRAYLNTPGL PVCQDHLEFW	138	
#68	HCV1318-1337	HSTDSTSILG IGTVLDQAET	122	#85	HCV1548-1567	PVCQDHLEFW ESVFTGLTHI	139	
#69	HCV1328-1347	IGTVLDQAET AGARLVVLAT	123	#86	HCV1558-1577	ESVFTGLTHI DAHFLSQTKQ	140	
#70	HCV1348-1367	ATPPGSVTVP HPNIEEVALS	124	#87	HCV1568-1587	DAHFLSQTKQ AGDNFPYLVA	141	
#71	HCV1358-1377	HPNIEEVALS NTGEIPFYGK	125	#88	HCV1578-1597	AGDNFPYLVA YQATVCARAQ	142	
#72	HCV1368-1387	NTGEIPFYGK AIPIEVIKGG	126	#89	HCV1588-1607	YQATVCARAQ APPPSWDQMW	143	
#73	HCV1388-1407	RHLIFCHSKK KSDELAAKLS	127	#90	HCV1598-1617	APPPSWDQMW KCLTRLKPTL	144	
#74	HCV1398-1417	KSDELAAKLS ALGLNAVAYY	128	#91	HCV1608-1627	KCLTRLKPTL HGPTPLLYRL	145	
#75	HCV1408-1427	ALGLNAVAYY RGLDVSVIPT	129	#92	HCV1618-1637	HGPTPLLYRL GAVQNEVTLT	146	
#76	HCV1418-1437	RGLDVSVIPT SGDVVVVATD	130	#93	HCV1628-1647	GAVQNEVTLT HPVTKFIMAC	147	

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FIG. 20e

Amino acid sequence of NS5A peptide pool

		•			•	•			
	NS5A (1972-2411)								
No	Name	Sequence	SEQ ID NO	No	Name	Sequence	SEQ ID NO		
#94	gHCV-1972	SGSWLRDVWDWICTVLTDFK	148	#113	gHCV-2192	GSPPSLASSSASQLSAPSLK	167		
#95	gHCV-1982	WICTVLTDFKTWLQSKLLPR	149	#114	gHCV-2202	ASQLSAPSLKATCTIHHDSP	168		
#96	gHCV-1992	TWLQSKLLPRLPGVPFFSCQ	150	#115	gHCV-2212	ATCTIHHDSPDADLIEANLL	169		
#97	gHCV-2002	LPGVPFFSCQRGYKGVWRGE	151	#116	gHCV-2222	DADLIEANLLWRQEMGGNIT	170		
#98	gHCV-2012	RGYKGVWRGEGIMQTTCPCG	152	#117	gHCV-2232	WRQEMGGNITRVE SENKVVI	171		
#99	gHCV-2022	GIMQTTCPCGAQIAGHVKNG	153	#118	gHCV-2242	RVESENKVVILDSFEPIRAE	172		
#100	gHCV-2042	SMRIVGPRTCSNTWHGTFPI	154	#119	gHCV-2252	LDSFEPIRAEEDEREVSVPA	173		
#101	gHCV-2052	SNTWHGTFPINAYTTGPCSP	155	#120	gHCV-2262	EDEREVSVPAEILRRSRKFP	174		
#102	gHCV-2062	NAYTTGPCSPSPAPNYSRAL	156	#121	gHCV-2272	EILRRSRKFPAAMPIWARPD	175		
#103	gHCV-2072	SPAPNYSRALWRVAAEEYVE	157	#122	gHCV-2292	YNPPLLESWKDPDYVPPVVH	176		
#104	gHCV-2082	WRVAAEEYVEVTRVGDFHYV	158	#123	gHCV-2302	DPDYVPPVVHGCPLPPTKAA	177		
#105	gHCV-2092	VTRVGDFHYVTGVTTDNVKC	159	#124	gHCV-2322	PIPPPRRKRTIVLTESTVSS	178		
#106	gHCV-2102	TGVTTDNVKCPCQVPAPEFF	160	#125	gHCV-2332	IVLTESTVSSALAELATKTF	179		
#107	gHCV-2122	TELDGVRLHRYAPACKPLLR	161	#126	gHCV-2342	ALAELATKTFGGSGSWAADS	180		
#108	gHCV-2132	YAPACKPLLRDEVSFQVGLN	162	#127	gHCV-2352	GGSGSWAADSGTATAPPDQT	181		
#109	gHCV-2152	QYLVGSQLPCEPEPDVAVLT	163	#128	gHCV-2372	SDDGDKESDVESYSSMPPLE	182		
#110	gHCV-2162	EPEPDVAVLTSMLTDPSHIT	164	#129	gHCV-2382	ESYSSMPPLEGEPGDPDLSD	183		
#111	gHCV-2172	SMLTDPSHITAETAKRRLAR	165	#130	gHCV-2392	GEPGDPDLSDGSWSTVSEEA	184		
#112	gHCV-2182	AETAKRRLARGSPPSLASSS	166						